

PROPOSED USE OF THE PLENARY POWERS TO VALIDATE THE GENERIC NAME *PARAPENAEUS* S. I. SMITH, 1885, AND TO INTERPRET THE NOMINAL SPECIES *PENEUS MEMBRANACEUS* RISSO, 1816 (CLASS CRUSTACEA, ORDER DECAPODA). Z.N.(S.) 645

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The purpose of the present application is to secure a valid basis for the use of the currently accepted name for the well-known and economically important shrimp almost universally known by the name *Parapenaeus longirostris* (Lucas, 1846). To secure this end the Commission will need to use its Plenary Powers in two directions. First, it will need to validate the generic name *Parapenaeus* Smith, S.I., 1885, by suppressing the older but totally unknown and never used name *Parapenaeus* Claus, 1876. Second, it will be necessary, in order to place in an unassailable position the specific name *longirostris* Lucas, 1846, as published in the binomen *Peneus longirostris*, for the Commission both to give directions as to the interpretation of the nominal species *Peneus membranaceus* Risso, 1816 and to suppress a specific name of older date which is a senior subjective synonym of *longirostris* Lucas.

2. In 1885, S. I. Smith proposed the new generic name *Parapenaeus* for a genus of shrimps of which *Peneus longirostris* Lucas, 1846, is the type. This generic name has almost universally been adopted and at present is firmly entrenched in scientific and non-scientific carcinological literature. *Parapenaeus longirostris* (Lucas) is a species which is fished for on a very large scale in the deeper water of the Mediterranean and is of considerable economic importance; in fishery literature concerning this species the generic name *Parapenaeus* is practically always adopted. As far as is known to me only one other generic name has been proposed for the genus in question, namely, *Neopenaeopsis* Bouvier, 1905 (*C. R. Acad. Sci. Paris* 141 : 747). This latter name, however, in 1908 (*Bull. Inst. océanogr. Monaco* 119 : 8) was synonymised by Bouvier with *Parapenaeus*, and has not been used since.

3. The name *Parapenaeus* S. I. Smith, 1885, is invalidated by the older generic name *Parapenaeus* Claus, 1876. In his book "Untersuchungen zur Erforschung der genealogischen Grundlage des Crustaceen-Systems", Claus, 1876, mentions in a foot-note on p. 46 "*Parapenaeus* n. gen.". Of this new genus Claus gives only a few details of the maxilla and the first maxilliped, and does not even mention any species as belonging to it. It is therefore not possible to ascertain the identity of Claus's new genus. The name *Parapenaeus* has been published by Claus in such an obscure place, that it is not even mentioned in Neave's *Nomenclator Zoologicus*. Since Claus mentions some characters of his new genus, the name *Parapenaeus* Claus cannot be considered a *nomen nudum*, and being an older homonym of *Parapenaeus* S. I. Smith, it invalidates the latter name.

4. The suppression of *Parapenaeus* Claus, 1876, seems to be perfectly

justified, as the identity of Claus's genus is not known ; the name *Parapenaeus* Claus has never been used, except by its original author ; and the suppression of this name makes the well-known and generally adopted generic name *Parapenaeus* Smith, 1885, an available name.

5. The original description of the type-species of *Parapenaeus* Smith, *Peneus longirostris* Lucas, 1846 (*Explor. sci. Algérie*, Crust. : 46), is very clear and the beautiful illustration accompanying the text leaves not the least doubt as to the identity of Lucas's species. Under a strict application of the Rules, however, this name is invalid, since it is a junior synonym of one, or possibly two, older names.

6. Some authors identified *Peneus longirostris* Lucas, 1846, with *Peneus Membranaceus* Risso, 1816 (*Hist. nat. Crust. Nice* : 98) and consequently adopted the specific name *membranaceus*, being the older of the two, for the species. The first author to do so was Heller, 1862 (*S.B. Akad. Wiss. Wien* 45 : 423). Other authors, the first being H. Milne Edwards, 1837 (*Hist. nat. Crust. 2* : 417), identified *Peneus membranaceus* Risso with a species of shrimp, which in 1840 was described as new by Philippi (1840, *Arch. Naturgesch.* 6(1) : 190) under the name *Peneus siphonoceros*. Lucas, 1849 (*Rev. Mag. Zool.* (2) 1 : 300) erected a new genus *Solenocera*, the type-species of which (by monotypy) was cited as " *Solenocera philippii* Lucas, *Penaeus siphonoceros* Philippi ". (It is clear that the specific name *philippii* Lucas as here published is an invalid replacement name for the specific name *siphonoceros* Philippi.) At present the name *Solenocera membranaceum* is generally adopted for the latter species, though often H. Milne Edwards is cited as the author and not Risso, probably because there exists some doubt as to the identity of *Peneus Membranaceus* Risso, while the identity of *Penaeus membranaceus* H. Milne Edwards is perfectly clear. This practice of course cannot be tolerated and the name *membranaceus* can only be used for the species if *Penaeus membranaceus* of H. Milne Edwards and *Peneus Membranaceus* Risso are identical.

7. Heller, 1862, denied the correctness of H. Milne Edwards's identification of *Peneus Membranaceus* Risso with the species described by Philippi (1840) as *Peneus siphonoceros*, because Risso " gibt als Kennzeichen ein verlängertes Rostrum an, während M. Edwards im Gegentheil hervorhebt, dass das Rostrum dieser Art nicht einmal die Länge der Augen erreicht ". Risso, 1826 (*Hist. nat. Europ. mérid.* 5 : 68) in his Latin diagnosis indeed states that the rostrum is long (" *rostro longo* ") but he says nothing about this character in his French text. That " *rostro longo* " is a lapsus, is made probable by the fact that in the original (1816) description of this species Risso in the Latin diagnosis states " *rostro brevi* ", while the French text says " *un petit rostre aplati* ". Another argument in favour of the identity of *Peneus Membranaceus* Risso with *Peneus siphonoceros* Philippi is the fact that Risso (1826) mentions that the antennular flagella are thickened, which is a conspicuous feature in *Solenocera*, while in *Parapenaeus* the antennular flagella are normal in shape. As the question of the identity of *Peneus Membranaceus* Risso has caused undesirable confusion in carcinological literature, it seems best to settle this question under plenary powers and to identify under these powers *Peneus Membranaceus* Risso, 1816, with *Peneus siphonoceros* Philippi, 1840. This solution settles the question

once and for all, causes the least disturbance in carcinological nomenclature (the name *membranaceus* being at present generally used for Philippi's species) and in all probability gives the name *membranaceus* to the species to which it rightfully belongs. This decision at the same time removes one of the obstacles to the availability of the specific name *longirostris* Lucas.

8. A second name endangering the validity of the specific name *longirostris* Lucas, 1846, is that of *Peneus Cocco* Prestandrea, 1833 (*Effem. sci. lett. Sicilia* 6 : 6). Prestandrea gives a very accurate description of his new species, which leaves not the least doubt that *Peneus Cocco* is identical with *Peneus longirostris* Lucas. As the original description of *Peneus Cocco* is given in a journal which is scarce and difficult to obtain, it obviously has escaped the notice of later authors and therefore has seldom, if ever, been used and is not found at all in modern carcinological literature. It seems an act of injustice not to use the name given to a species by the first author describing it, the more so as the description is of high quality. But for the sake of stability in carcinological nomenclature it certainly is better to suppress the neglected specific name *Cocco* Prestandrea, in order to save the well-known specific name *longirostris* Lucas, which at present is universally accepted for the species in question and the changing of which will cause an enormous confusion in scientific and non-scientific carcinological literature.

9. Subfamily names have been derived from both the generic names *Solenocera* and *Parapenaeus*. The subfamily SOLENOCERINAE (emendation by Ortmann, 1898, Bronn's *Klass. Ordn. Thierr.* 5(2) (50-52) : 1121, of SOLENO-CERINA) Wood-Mason & Alcock, 1891, *Ann. Mag. nat. Hist.* (6) 9 : 275 is currently recognised by most carcinologists, while PARAPENAEINAE (emendation by Ortmann, *op. cit.* (47-49) : 1120, of PARAPENAEINA) Wood-Mason & Alcock, 1891, *op. cit.* : 271 is as a rule synonymized with the subfamily PENAEINAE Rafinesque, 1815, already placed on the Official List (as PENAEIDAE) in Direction 15.

10. I therefore propose that the International Commission on Zoological Nomenclature should :—

(1) use its plenary powers :—

- (a) to identify the nominal species *Peneus Membranaceus* Risso, 1816, with the nominal species *Peneus siphonoceros* Philippi, 1840 ;
- (b) to suppress for the purposes of both the Law of Priority and the Law of Homonymy the generic name *Parapenaeus* Claus, 1876 ;
- (c) to suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy, the specific name *cocco* Prestandrea, 1833, as published in the binomen *Peneus Cocco* ;

(2) place the following generic names on the Official List of Generic Names in Zoology :—

- (a) *Parapenaeus* Smith, S. I., 1885 (gender : masculine), (type-species, by original designation, *Peneus longirostris* Lucas, 1846) ;
- (b) *Solenocera* Lucas, 1849 (gender : neuter) (type species by monotypy, *Peneus siphonoceros* Philippi, 1840) ;

(3) place the following specific names on the Official List of Specific Names in Zoology :—

- (a) *longirostris* Lucas, 1846, as published in the binomen *Peneus longirostris* (type-species of *Parapenaeus* Smith, S. I., 1885) ;
- (b) *membranaceus* Risso, 1816, as published in the binomen *Peneus Membranaceus* (sic) (the oldest specific name subjectively available for the type-species of *Solenocera* Lucas, 1849) ;
- (4) place the generic name *Parapenaeus* Claus, 1876, (as suppressed under the plenary powers in (1)(b) above) on the Official Index of Rejected and Invalid Generic Names in Zoology ;
- (5) place the following names on the Official Index of Rejected and Invalid Specific Names in Zoology :—
 - (a) *cocco* Prestandrea, 1833, as published in the binomen *Peneus coco* (suppressed under the plenary powers in (1)(c) above) ;
 - (b) *philippii* Lucas, 1849, as published in the binomen *Solenocera philippii* (an invalid replacement name for the specific name *siphonoceros* Philippi, 1840, as published in the binomen *Peneus siphonoceros*) ;
- (6) place the following names on the Official List of Family-Group Names in Zoology :—
 - (a) PARAPENAEINAE (emendation by Ortmann, 1898, of PARAPENAEINA) Wood-Mason & Alcock, 1891 (type-genus *Parapenaeus* Smith, S. I., 1885) ;
 - (b) SOLENOCERINAE (emendation by Ortmann, 1898, of SOLENOCERINA) Wood-Mason & Alcock, 1891 (type-genus *Solenocera* Lucas, 1849) ;
- (7) place the following names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :—
 - (a) PARAPENAEINA Wood-Mason & Alcock, 1891 (an incorrect original spelling of PARAPENAEINAE) (type-genus *Parapenaeus* Smith, S. I., 1885) ;
 - (b) SOLENOCERINA Wood-Mason & Alcock, 1891 (an incorrect original spelling of SOLENOCERINAE) (type-genus *Solenocera* Lucas, 1849).